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What is claimed is:

Sub A1
1. An isolated, recombinantly-generated, attenuated, human respiratory syncytial virus (RSV) subgroup B having at least one attenuating mutation in the RNA polymerase gene.

2. The virus of Claim 1 wherein the at least one attenuating mutation in the RNA polymerase gene is selected from the group consisting of nucleotide changes which produce changes in an amino acid selected from the group consisting of residues 353 (arginine → lysine), 431 (lysine → arginine), 1229 (aspartic acid → asparagine), 2029 (threonine → isoleucine) and 2050 (asparagine → aspartic acid).

3. A vaccine comprising an isolated, recombinantly-generated, attenuated RSV subgroup B according to Claim 1 and a physiologically acceptable carrier.

4. A vaccine comprising an isolated, recombinantly-generated, attenuated RSV subgroup B according to Claim 2 and a physiologically acceptable carrier.

5. A method for immunizing an individual to induce protection against RSV subgroup B which comprises administering to the individual the vaccine of Claim 3.

6. A method for immunizing an individual to induce protection against RSV subgroup B which comprises administering to the individual the vaccine of Claim 4.

7. A composition which comprises a transcription vector comprising an isolated nucleic acid molecule encoding a genome or antigenome of an RSV subgroup B having at least one attenuating mutation in

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the RNA polymerase gene, together with at least one expression vector which comprises at least one isolated nucleic acid molecule encoding the trans-acting N, P, L and M2 proteins of the virus necessary for encapsidation, transcription and replication, whereby upon expression an infectious attenuated virus is produced.

8. The composition of Claim 7 wherein the transcription vector comprises an isolated nucleic acid molecule which encodes an RSV subgroup B according to Claim 2.

9. A method for producing infectious attenuated RSV subgroup B which comprises transforming or transfecting host cells with the at least two vectors of Claim 7 and culturing the host cells under conditions which permit the co-expression of these vectors so as to produce the infectious attenuated virus.

10. The method of Claim 9 wherein the virus is the RSV subgroup B of Claim 2.

11. An isolated nucleic acid molecule comprising a RSV subgroup B sequence in positive strand, antigenomic message sense selected from the group consisting of 2B wild-type strain (SEQ ID NO:1), 18537 wild-type strain (SEQ ID NO:3), 2B33F vaccine strain (SEQ ID NO:5), 2B20L vaccine strain (SEQ ID NO:7), 2B33F TS(+) revertant strain (SEQ ID NO:9), and 2B20L TS(+) revertant strain (SEQ ID NO:11), and the complementary genomic sequences thereof.

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